Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application.

Listing of Claims:

1. (currently amended): A showerhead for substrate processing including:

a gas inlet leading to a gas reservoir;

a faceplate fitted between the reservoir and a processing space, the faceplate including a plurality of orifices, and

a sheet including a plurality of orifices, the sheet orifices being smaller in size than the minimum diameter of the faceplate orifices,

wherein the sheet is ~~directly~~ attached to a surface of the faceplate such that the fluid passes to the process space from the reservoir via the sheet orifices.

2. (currently amended): A showerhead according to Claim 1, wherein the sheet is sealed to the faceplate by a sealing member located between the sheet and the faceplate.

3. (cancelled)

4. (original): A showerhead according to Claim 1, wherein the sheet is fitted between the reservoir and the faceplate.

5. (currently amended): A showerhead according to Claim 1, wherein the sheet is fitted between the reservoir and the faceplate and wherein ~~at least~~ some of the faceplate orifices are not aligned with the sheet orifices.

6. (original): A showerhead according Claim 1, wherein the sheet is fitted between the faceplace and the process space.

7. (original): A showerhead according to Claim 1, wherein the sheet is fitted between the faceplace and the process space and the sheet is formed of a fluorine scavenging material.

8. (original): A showerhead according to Claim 1, wherein the sheet is fitted between the faceplace and the process space and the sheet includes silicon or carbon.

9. (original): A showerhead according to Claim 1, wherein the centres of faceplate orifices and the sheet orifices are substantially aligned.

10. (original): A showerhead according to Claim 1, wherein the showerhead further includes a dividing plate having a plurality of orifices, the dividing plate defining two reservoirs and the sheet is fitted adjacent the dividing plate.

11. (original): A showerhead according to Claim 1, wherein the showerhead further includes a dividing plate having a plurality of orifices, the dividing plate defining two reservoirs and the sheet is fitted adjacent the dividing plate and wherein the sheet is fitted between the dividing plate orifices and the orifices of the faceplate.

12. (original): A showerhead according to Claim 1, wherein the showerhead further includes a further sheet adjacent the first sheet, the orifices of the further sheet being larger in size than the orifices of the first sheet, the first sheet and the further sheet being arranged such that fluid flows through the orifices of both sheets.

13. (original): A showerhead according to Claim 1, wherein the sheet is formed of an elastomeric material or a metal or a plastic.

14. (original): A showerhead according to Claim 1, wherein the showerhead further includes a further sheet adjacent the first sheet, the orifices of the further sheet being larger in size than the orifices of the first sheet, the first sheet and the further sheet being arranged such that fluid flows through the orifices of both sheets and wherein the further sheet is formed of an elastomeric material.

15. (original): A showerhead according to Claim 1, wherein the sheet orifices are approximately 0.5mm or less in diameter.

16. (original): A showerhead according to Claim 1, wherein the sheet orifices are approximately 0.15mm in diameter.

17. (currently amended): A method of manufacturing a showerhead for substrate processing, the method including steps of:

forming a plurality of orifices in a sheet, and

~~directly~~ attaching the sheet to a surface of a faceplate of a showerhead having a gas inlet leading to a gas reservoir, the faceplate being fitted between the reservoir and a processing space, and the sheet being attached to the faceplate such that fluid passes from the reservoir to the processing space via the sheet orifices,

wherein the size of the sheet orifices is less than the minimum diameter of orifices in the faceplate.

18. (original): A method according to Claim 17, wherein the orifices are formed by photoetching, spark erosion, laser forming, moulding, stamping, die cutting or plasma etching.

19. (currently amended): A sheet adapted for ~~directly~~ attaching to a surface of a faceplate of a showerhead for substrate processing, the sheet including a plurality of orifices of diameter smaller than the minimum diameter of orifices in the faceplate of the showerhead onto which the sheet is to be attached.

20. (original): A sheet according to Claim 19, wherein the thickness of the sheet is less than 1mm.

21. (original): A sheet according to Claim 19 formed at least in part of an elastomeric material.

22. (new): A method according to Claim 17, wherein the sheet is attached to the faceplate by a sealing the sheet to the faceplate with a sealing member located between the sheet and the faceplate.